Summary: Federated Registry Pilot for the Federal CIO Council

Presented to:

Environmental Protection Agency
Geospatial Information Office

August 16, 2004 *(Updated September 7, 2004)*

Presented by NOBLE STAR *and* **LogicLibrary**

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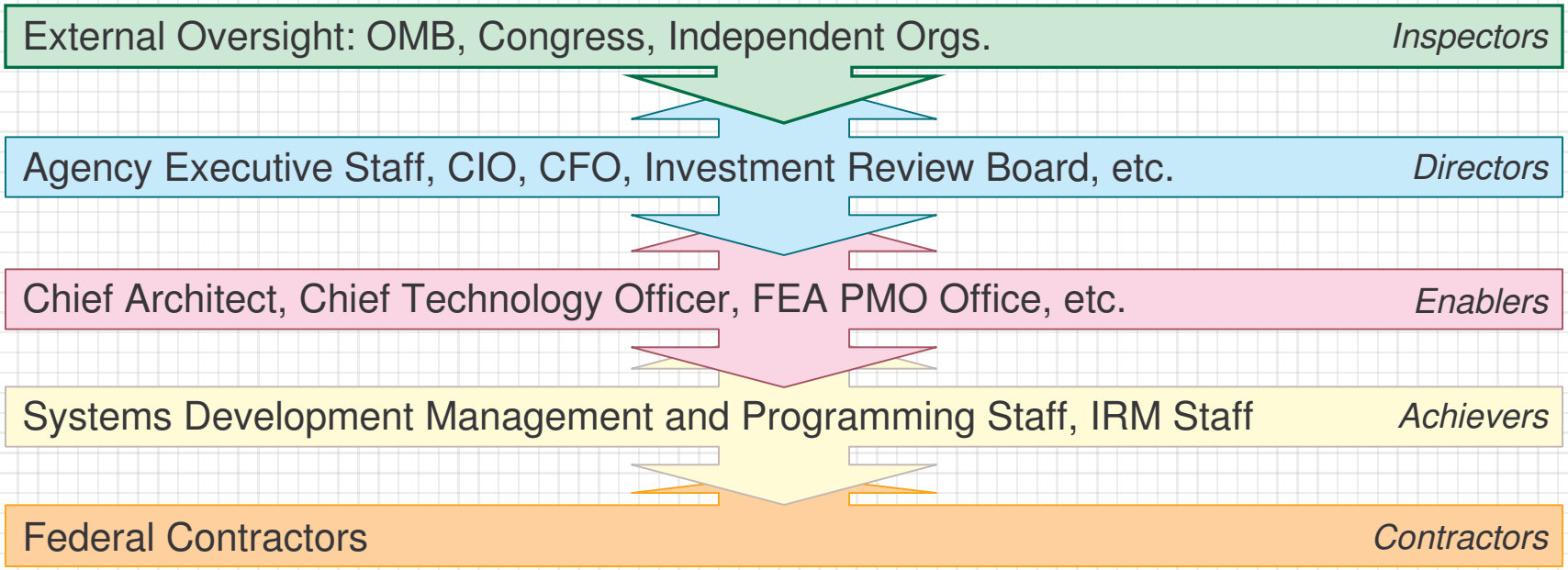
Agenda

- Why the “Federated Registry” pilot?
- Pilot summary
  - Goals
  - Initial findings
  - Business case
  - Technical solution options
  - Sample asset view
- Demonstration of a “Federated Registry”
- Q&A *(Also: website links for additional demo)*
- Thank you, and next steps

Why the "Federated Registry" pilot

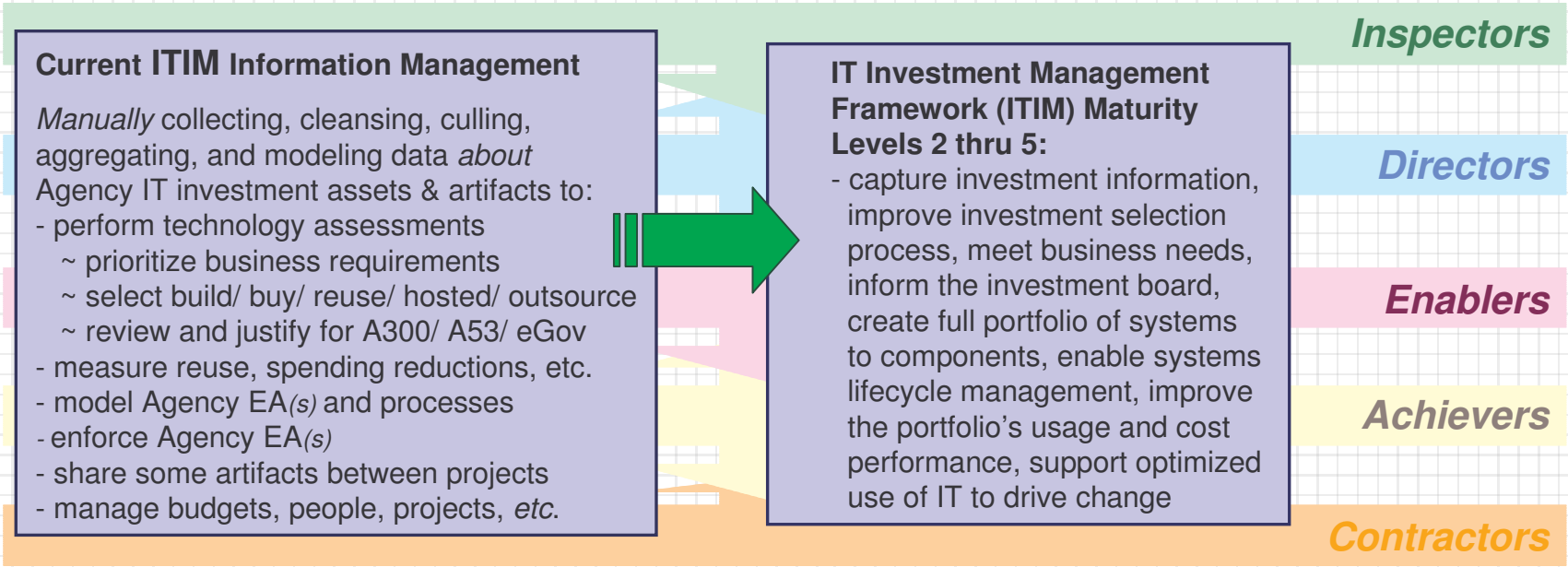
- **Began as technology review for centralized component registry**
- **Components = Software Development Assets**
- **Software Development Assets (SDAs) = more than just "Components," SDAs =**
  - Business process models
  - *Budget request documents* and development plans
  - *Legacy systems*
  - *Enterprise architectures and reference models*
  - Technical architectures, frameworks, and patterns
  - Service Oriented Architectures, web services, and middleware
  - .NET, J2EE, Corba components
  - Use cases, test cases, and requirements documents
  - Software application documentation, help files
  - Best practices and methodologies
  - Associated articles and training documents, etc.
- **Became a review of the applicability of software development asset management systems for ITIM *information management*.**

Pilot Summary: *goals*



- Review interrelated Federal IT Investment Management practices and issues.
- Determine applicability and adaptability of commercially available solutions.
- Discover ways to ease each CIO's burdens and risks w/ IT Investment Management administration & reporting (ITIM *Information Management*)
- Suggest options to Agency CIOs and staffers who manage information ***about*** the systems, components, and technologies addressed in the ITIM function.

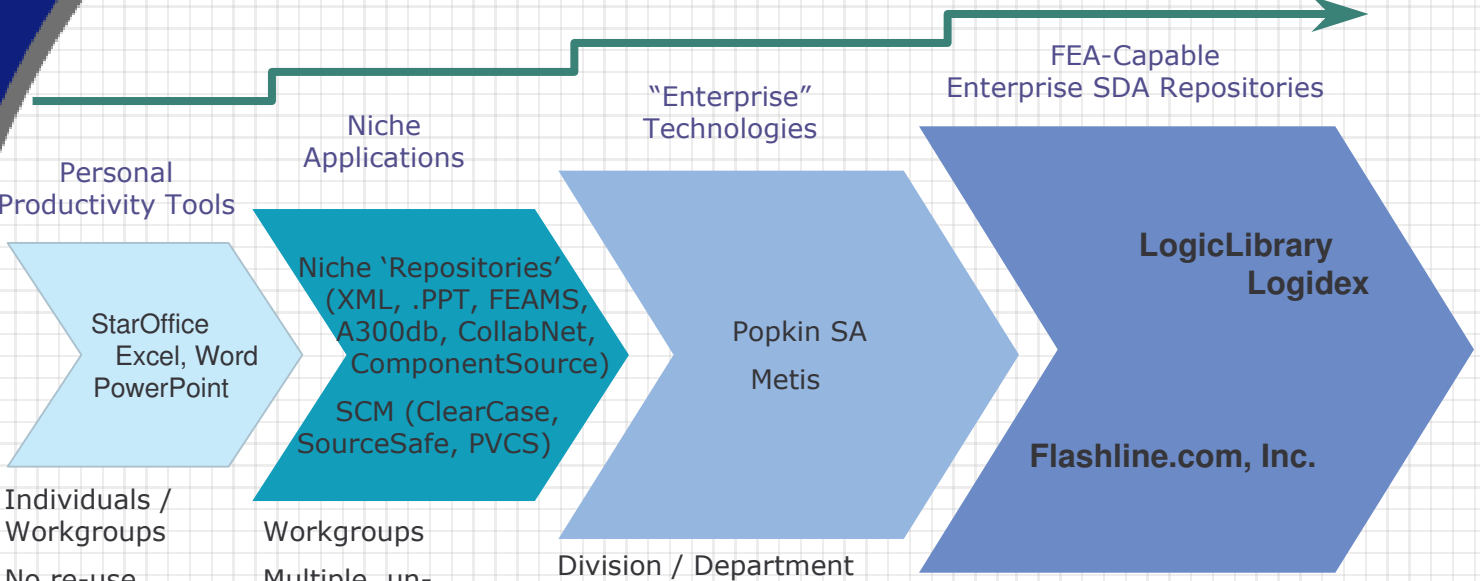
Pilot Summary: *initial findings*



- Current ITIM information management practices are primarily *manual* in nature. Decisions are based on *static*, laboriously *modeled,* snapshots of dynamic and complex IT organizations.
- Plentiful opportunities exist for incorporation of actual artifacts, plus real-time metrics and reports, into ITIM information management, thus progressing ITIM maturity from managing past-tense renderings to managing real-time tangibles.
- Risks in manual/ static/ modeled ITIM Information Management include: management and investment decisions may be made from outdated, inaccurate, or incomplete data; external audits may uncover that the actual environment is not accurately portrayed by static EA models or reports; and, CIOs may experience delays in achieving desired objectives due to being hampered by inaccurate and outdated information.

Pilot Summary: *technical solution options*

Increasing levels of support for the strategic management of ITIM initiatives; maturation by automating all levels of SDA usage, real-time metrics collection, and enabling management of actual inventories.



- **Accurate in real-time**
- **Strategic Management**
- **FEA Maturity**
- **Strategic Process Changes**
- **Savings**

CRITERION	Personal Productivity Tools	Niche Applications	"Enterprise" Technologies	FEA-Capable Enterprise SDA Repositories
	Individuals / Workgroups	Workgroups	Division / Department	Agency / Cross Agency (as desired); supports ITIM business processes
	No re-use inventory	Multiple, un-coordinated re-use inventories	Manual/ modeled/ static inventories; support for asset types varies	Automated metrics collection re: tangible asset inventories (not static models; provides real-time/ actual info for 'what if' modeling in Metis and Popkin)
	Does not support classification activities	Multiple schemes for classification	Coordinated scheme for classification	FEA & CPIC-specific linkage / associative abilities: FEA, Agency EA(s), Reference Models, TOGAF, DODAF, Exhibit 300's, etc.
	Manual versioning	Supports at least one asset type; asset types vary by product	Some associative / linkage capabilities	Link to multiple repositories for single source of information about an asset
	Laborious manual data collection, cleansing, verification, and reporting	Version control	Supports multiple asset types	Supports ALL asset types, lifecycles, governance requirements, versioning
		Some have add'l functionality, like collaboration	Supports governance and version control	Coordinated scheme for classification

Unique to Logidex:

Enhanced federation capabilities

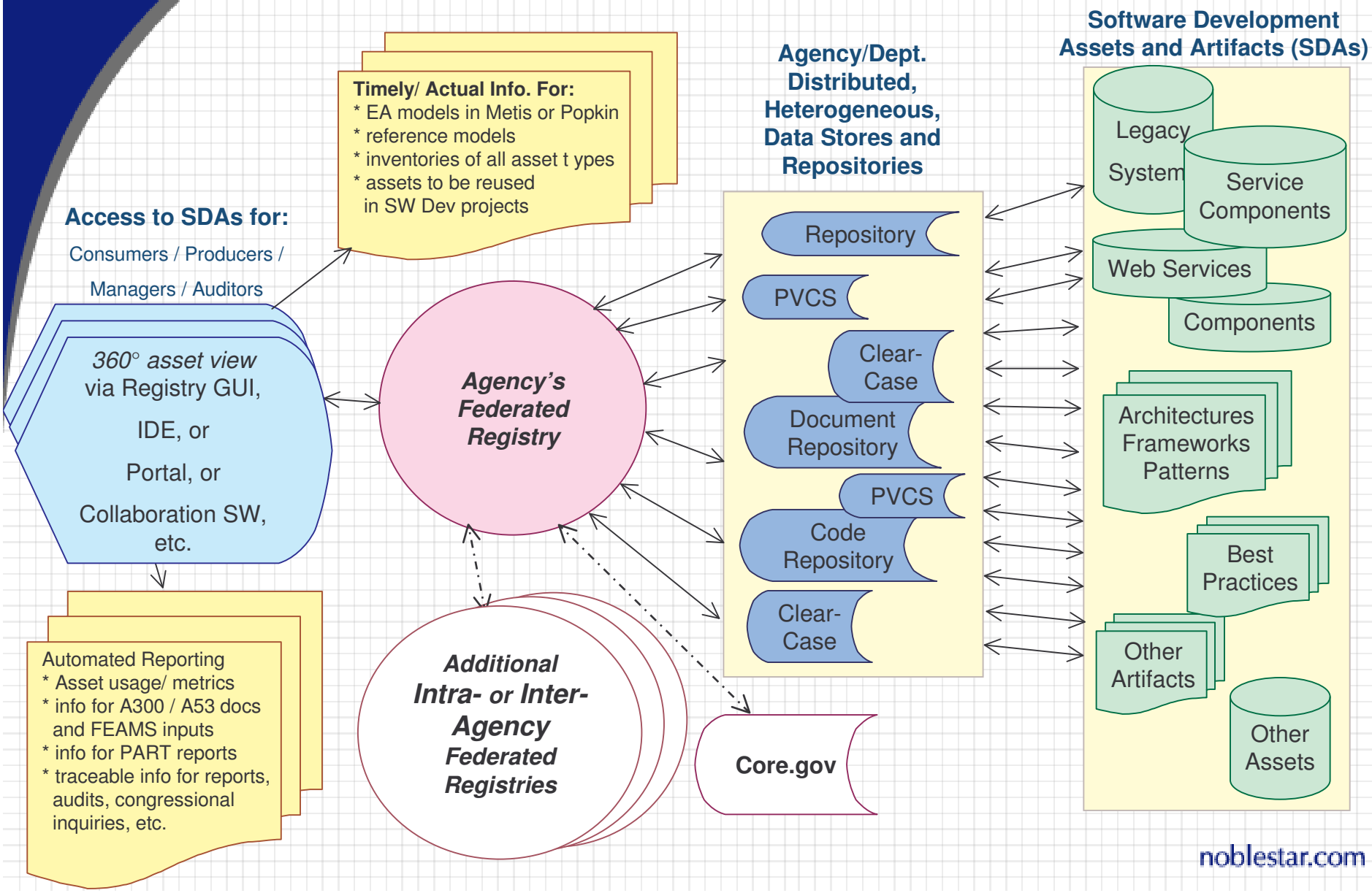
Launch from portals, or w/in IDEs, or collaboration s/w like Groove v3.0

Automated discovery of reusable assets

S/W for component certification & QA

Open architecture for use of semantic search s/w like Vivisimo

Pilot Summary: *technical solution options*



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Demonstration of a Federated Registry

LogicLibrary's Logidex

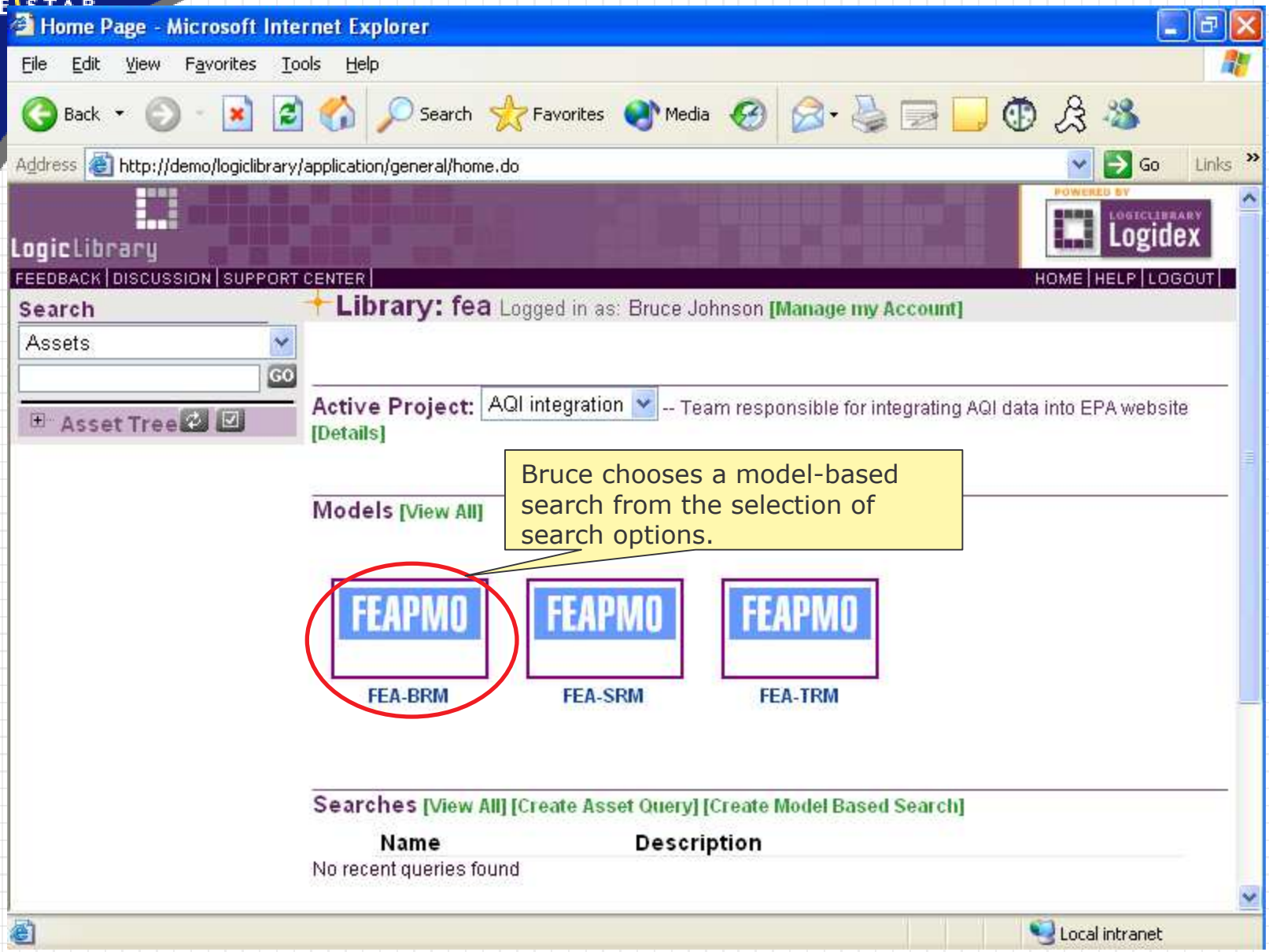
Demonstration of a Federated Registry

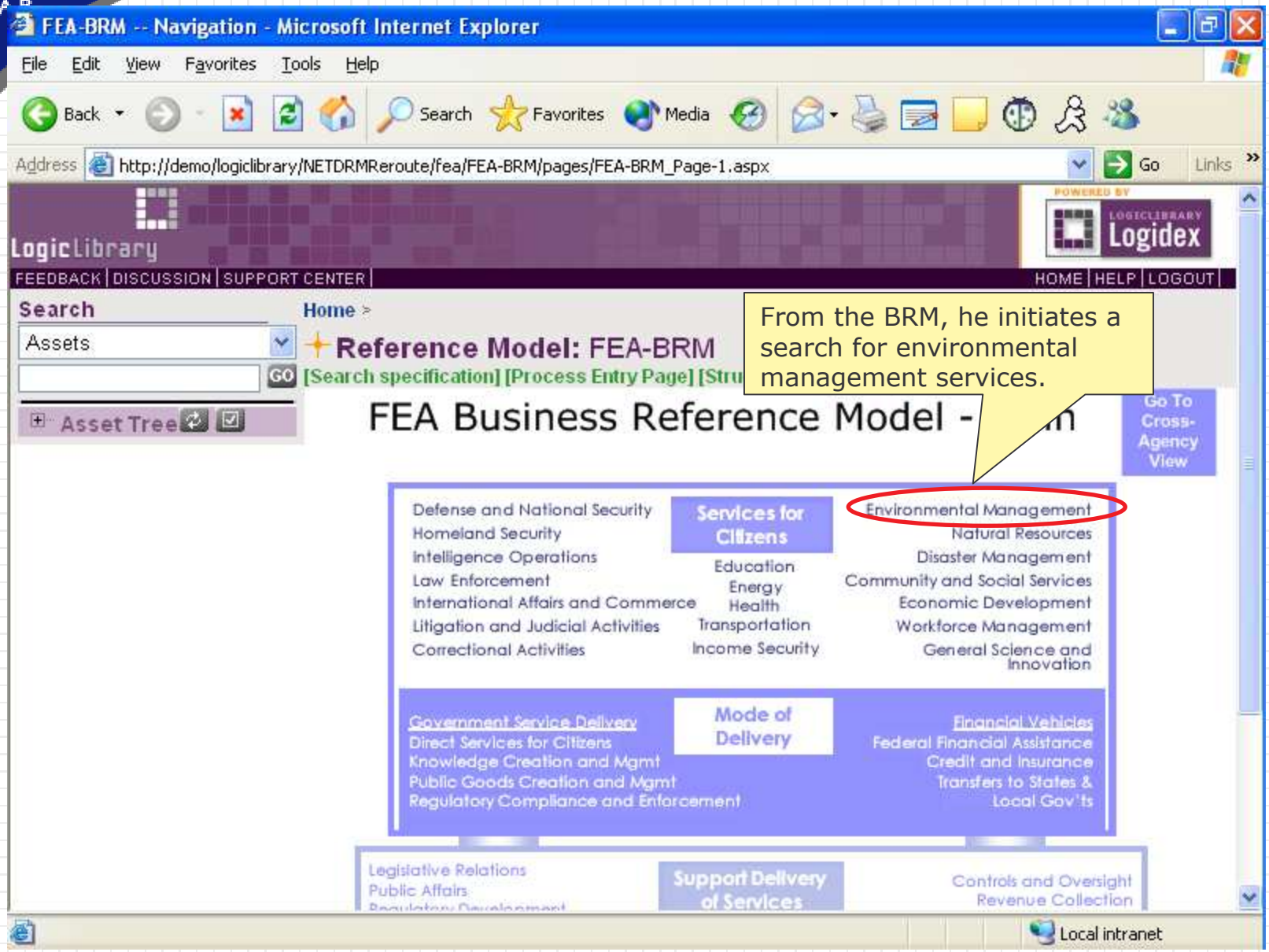
In this demonstration, we have a working development project, AQI Integration, and three Logidex users:

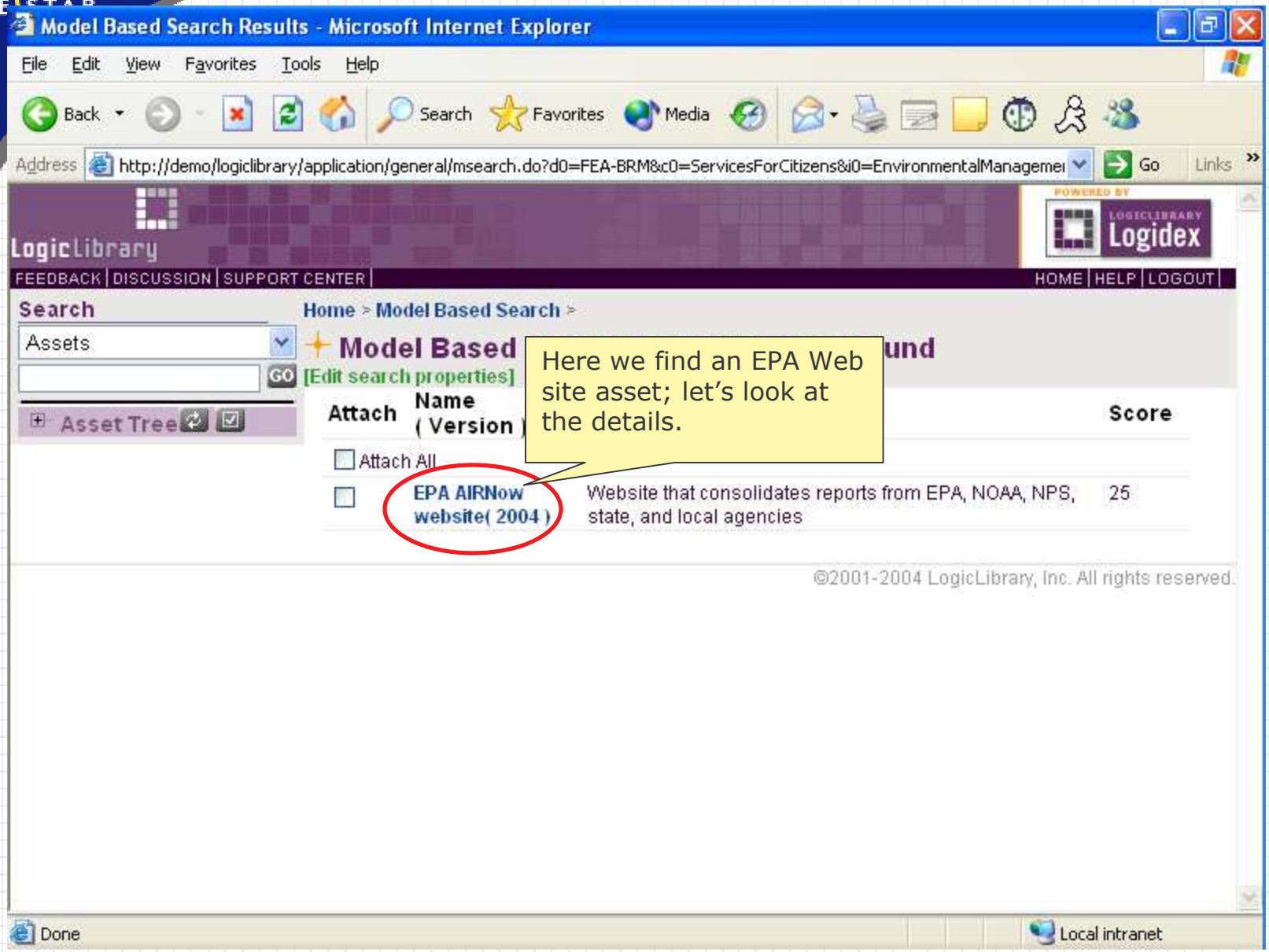
- Bruce Johnson, a developer on the AQI Integration project
- Elizabeth Krause, a project manager on the AQI Integration project
- Jerry McMann, the asset owner responsible for the EPA Web site

We are going to go through a discovery/search scenario, finding the relevant asset, requesting acquisition of the asset, and going through the configured approval lifecycle to register this asset into the AQI integration project.

1. We'll start by logging into Logidex as Bruce Johnson.
2. Bruce can search using one of several search modes –
   - He will use model-based searching with the FEA-BRM model


Home Page - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://demo/logiclibrary/application/general/home.do
Go Links
LogicLibrary
Logidex
FEEDBACK | DISCUSSION | SUPPORT CENTER
HOME | HELP | LOGOUT
Search
Assets
GO
Asset Tree
Library: fea Logged in as: Bruce Johnson [Manage my Account]
Active Project: AQI integration -- Team responsible for integrating AQI data into EPA website
[Details]
Bruce chooses a model-based search from the selection of search options.
Models [View All]
FEAPMO
FEA-BRM
FEAPMO
FEA-SRM
FEAPMO
FEA-TRM
Searches [View All] [Create Asset Query] [Create Model Based Search]
Name
Description
No recent queries found
Local intranet


FEA-BRM -- Navigation - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://demo/logiclibrary/NETDRMReroute/fea/FEA-BRM/pages/FEA-BRM_Page-1.aspx
Go Links
LogicLibrary
Logidex
FEEDBACK | DISCUSSION | SUPPORT CENTER
HOME | HELP | LOGOUT
Search
Assets
GO
Asset Tree
Home >
Reference Model: FEA-BRM
[Search specification] [Process Entry Page] [Stru
From the BRM, he initiates a search for environmental management services.
FEA Business Reference Model -
Go To Cross-Agency View
Defense and National Security
Homeland Security
Intelligence Operations
Law Enforcement
International Affairs and Commerce
Litigation and Judicial Activities
Correctional Activities
Services for Citizens
Education
Energy
Health
Transportation
Income Security
Environmental Management
Natural Resources
Disaster Management
Community and Social Services
Economic Development
Workforce Management
General Science and Innovation
Government Service Delivery
Direct Services for Citizens
Knowledge Creation and Mgmt
Public Goods Creation and Mgmt
Regulatory Compliance and Enforcement
Mode of Delivery
Financial Vehicles
Federal Financial Assistance
Credit and Insurance
Transfers to States & Local Gov'ts
Legislative Relations
Public Affairs
Support Delivery of Services
Controls and Oversight
Revenue Collection
Local intranet


Model Based Search Results - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://demo/logiclibrary/application/general/msearch.do?d0=FEA-BRM&c0=ServicesForCitizens&i0=EnvironmentalManageme
Go Links
LogicLibrary
Logidex
FEEDBACK | DISCUSSION | SUPPORT CENTER
HOME | HELP | LOGOUT
Search
Assets
GO
[Edit search properties]
Asset Tree
Home > Model Based Search >
Model Based
Here we find an EPA Web site asset; let's look at the details.
Attach
Name (Version)
Score
Attach All
EPA AIRNow website(2004)
Website that consolidates reports from EPA, NOAA, NPS, state, and local agencies
25
©2001-2004 LogicLibrary, Inc. All rights reserved.
Done
Local intranet

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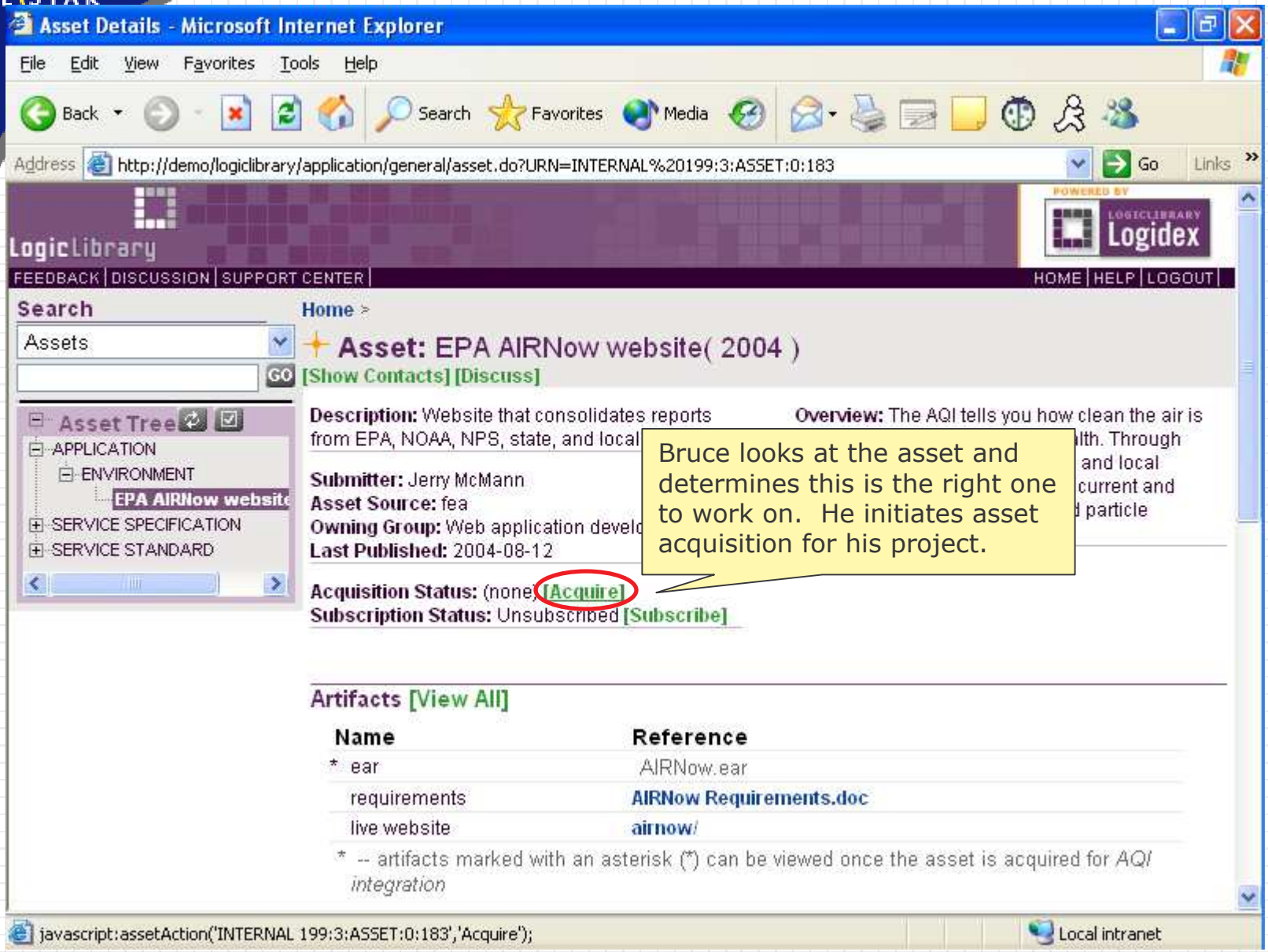
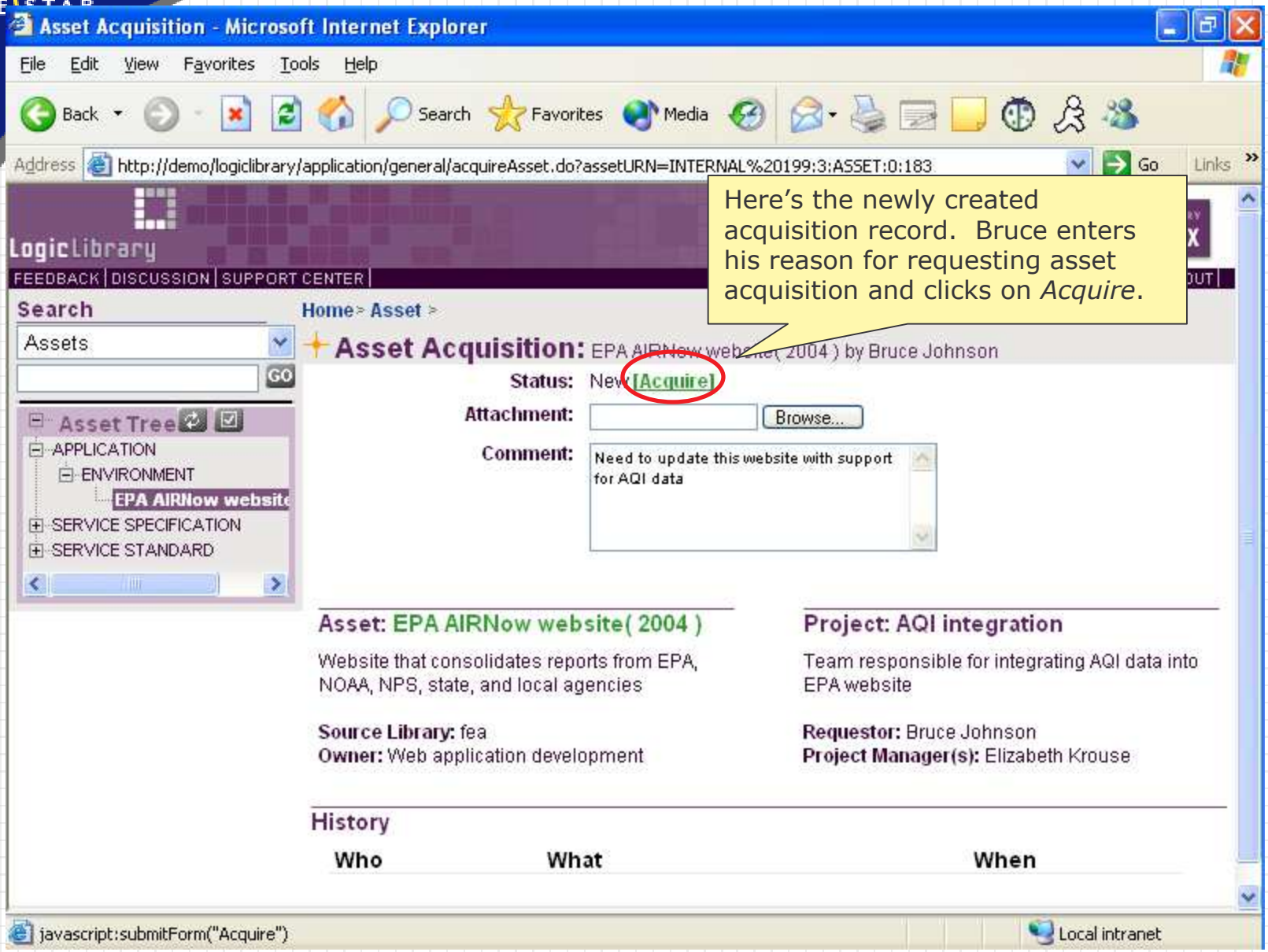
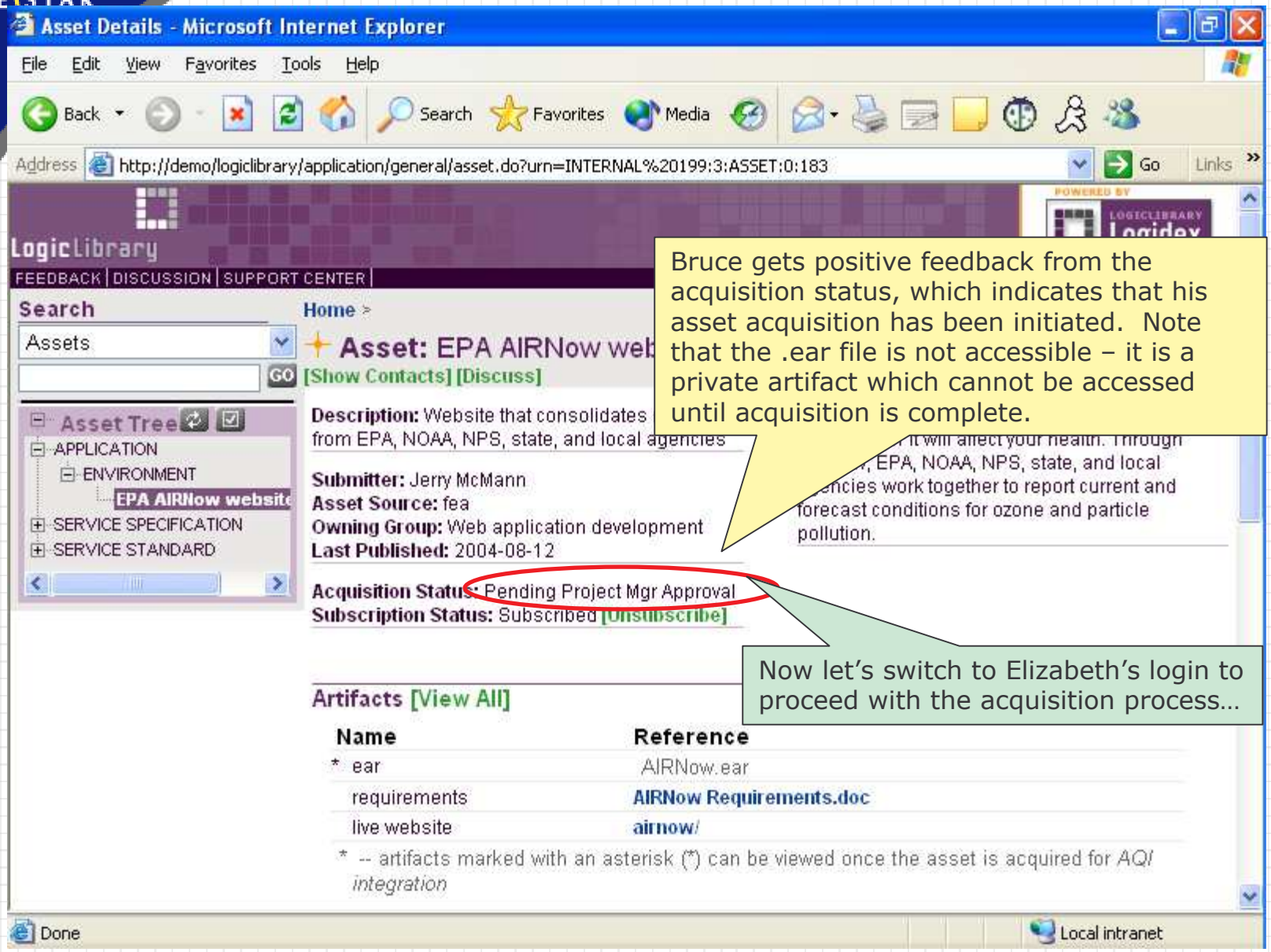

Asset Details - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://demo/logiclibrary/application/general/asset.do?URN=INTERNAL%20199:3:ASSET:0:183
Go Links
LogicLibrary
Logidex
FEEDBACK | DISCUSSION | SUPPORT CENTER
HOME | HELP | LOGOUT
Search
Assets
GO
Asset Tree
APPLICATION
ENVIRONMENT
EPA AIRNow website
SERVICE SPECIFICATION
SERVICE STANDARD
Home >
Asset: EPA AIRNow website(2004)
[Show Contacts] [Discuss]
Description: Website that consolidates reports from EPA, NOAA, NPS, state, and local
Overview: The AQI tells you how clean the air is
lth. Through
and local
current and
particle
Submitter: Jerry McMann
Asset Source: fea
Owning Group: Web application develo
Last Published: 2004-08-12
Acquisition Status: (none) [Acquire]
Subscription Status: Unsubscribed [Subscribe]
Bruce looks at the asset and determines this is the right one to work on. He initiates asset acquisition for his project.
Artifacts [View All]
Name
Reference
* ear
AIRNow.ear
requirements
AIRNow Requirements.doc
live website
airnow/
* -- artifacts marked with an asterisk (*) can be viewed once the asset is acquired for AQI integration
javascript:assetAction('INTERNAL 199:3:ASSET:0:183','Acquire');
Local intranet


Asset Acquisition - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://demo/logiclibrary/application/general/acquireAsset.do?assetURN=INTERNAL%20199:3:ASSET:0:183
Go Links
LogicLibrary
FEEDBACK | DISCUSSION | SUPPORT CENTER
Here's the newly created acquisition record. Bruce enters his reason for requesting asset acquisition and clicks on *Acquire*.
Search
Assets
GO
Asset Tree
APPLICATION
ENVIRONMENT
EPA AIRNow website
SERVICE SPECIFICATION
SERVICE STANDARD
Home > Asset >
Asset Acquisition: EPA AIRNow website(2004) by Bruce Johnson
Status: New [Acquire]
Attachment: Browse...
Comment: Need to update this website with support for AQI data
Asset: EPA AIRNow website(2004)
Website that consolidates reports from EPA, NOAA, NPS, state, and local agencies
Source Library: fea
Owner: Web application development
Project: AQI integration
Team responsible for integrating AQI data into EPA website
Requestor: Bruce Johnson
Project Manager(s): Elizabeth Krouse
History
Who What When
javascript:submitForm("Acquire")
Local intranet

Acquire Function in Logidex

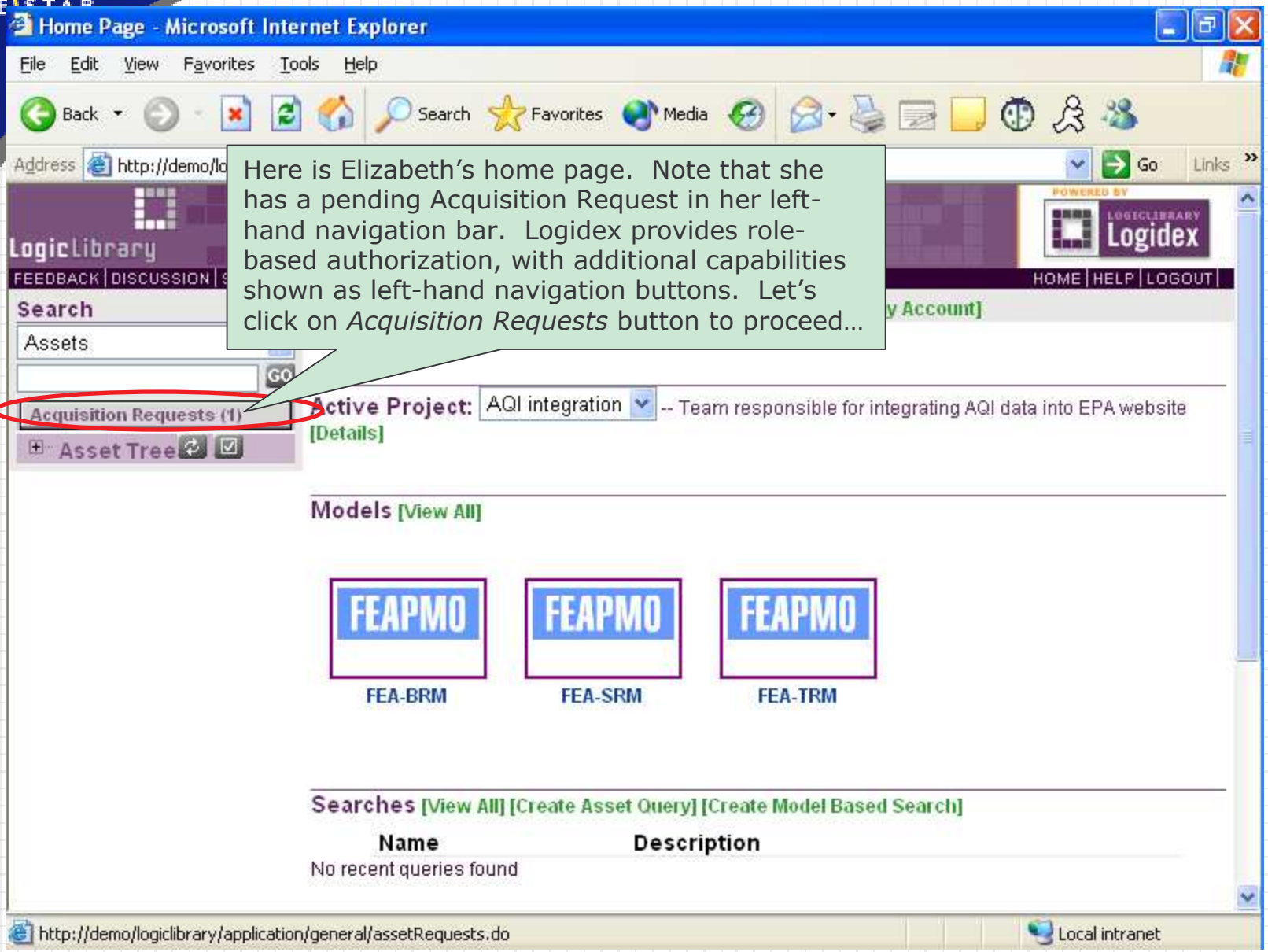
Bruce could also have attached a justification/compliance document as an attachment. This may be a checklist of questions that developers need to answer for asset approval. Logidex assets can be configured to automatically populate acquisition records with justification/compliance document templates, such as the optional Open Source License Compliance (OSLC) Module.

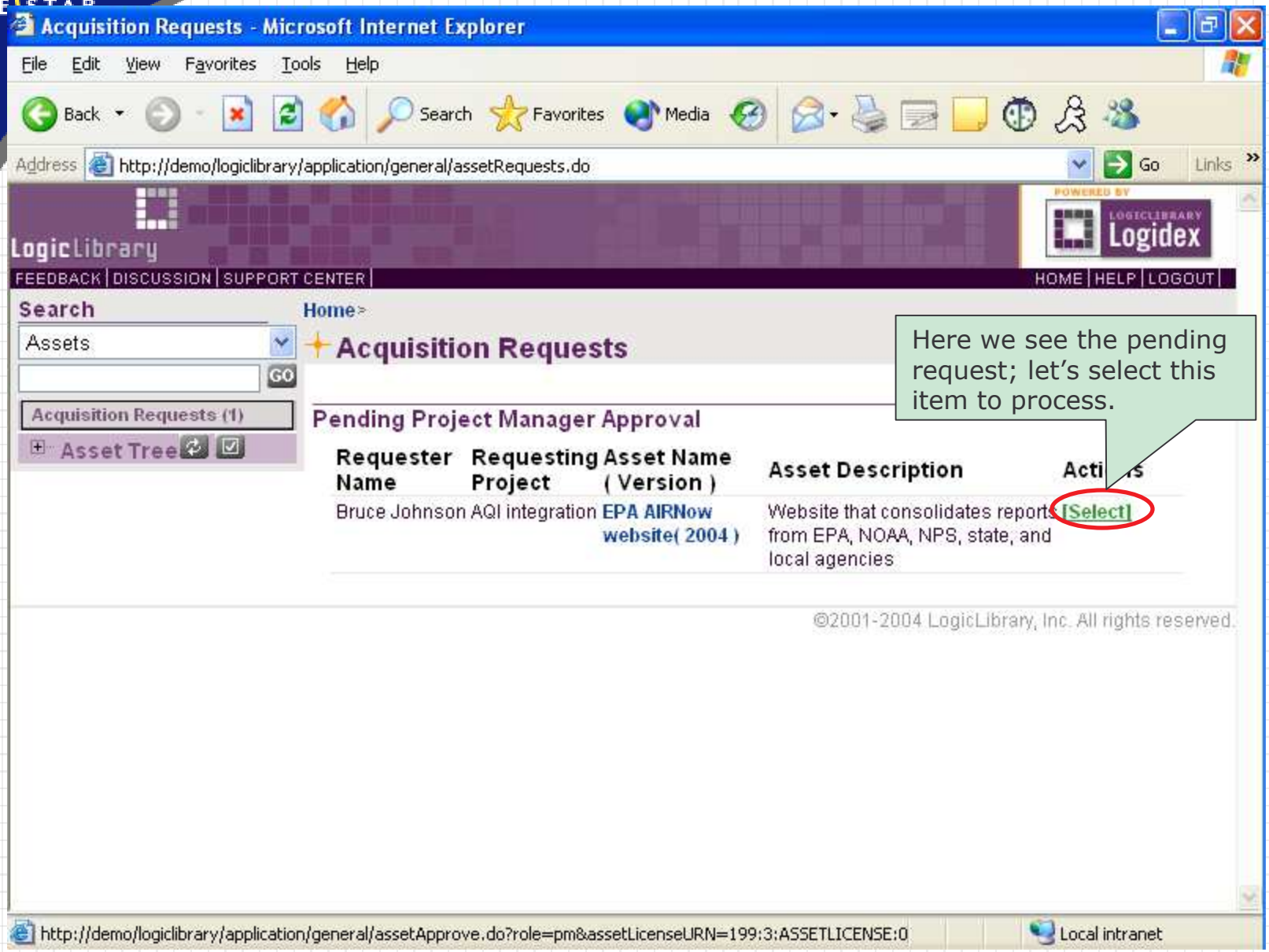
Clicking on A*cquire* initiates the asset acquisition process for the project. Because the AQI Integration project has been configured to require Project Manager approval for asset acquisitions, Elizabeth will receive an email indicating that a new asset acquisition for her project has been initiated.

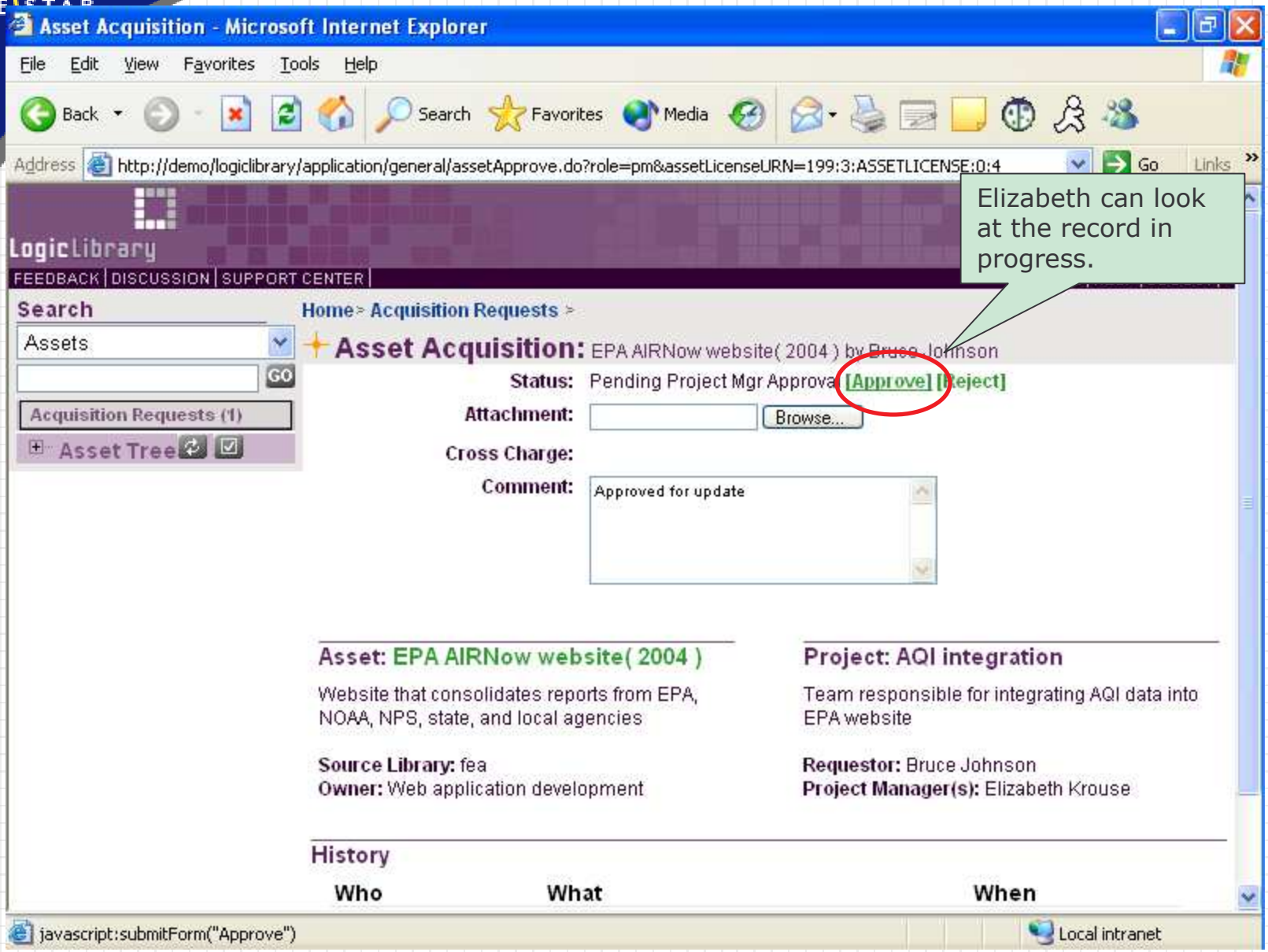


Bruce gets positive feedback from the acquisition status, which indicates that his asset acquisition has been initiated. Note that the .ear file is not accessible – it is a private artifact which cannot be accessed until acquisition is complete.

Now let's switch to Elizabeth's login to proceed with the acquisition process…


Home Page - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://demo/lc
Go Links
Here is Elizabeth's home page. Note that she has a pending Acquisition Request in her left-hand navigation bar. Logidex provides role-based authorization, with additional capabilities shown as left-hand navigation buttons. Let's click on Acquisition Requests button to proceed…
LogicLibrary
FEEDBACK | DISCUSSION
POWERED BY LOGICLIBRARY Logidex
HOME | HELP | LOGOUT
Search
Assets
GO
Acquisition Requests (1)
Asset Tree
y Account]
Active Project: AQI integration -- Team responsible for integrating AQI data into EPA website
[Details]
Models [View All]
FEAPMO
FEA-BRM
FEAPMO
FEA-SRM
FEAPMO
FEA-TRM
Searches [View All] [Create Asset Query] [Create Model Based Search]
Name
Description
No recent queries found
http://demo/logiclibrary/application/general/assetRequests.do
Local intranet


Acquisition Requests - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://demo/logiclibrary/application/general/assetRequests.do
Go Links
LogicLibrary
Logidex
FEEDBACK | DISCUSSION | SUPPORT CENTER
HOME | HELP | LOGOUT
Search
Assets
GO
Acquisition Requests (1)
Asset Tree
Home >
Acquisition Requests
Here we see the pending request; let's select this item to process.
Pending Project Manager Approval
Requester Name
Requesting Project
Asset Name (Version)
Asset Description
Acti s
Bruce Johnson
AQI integration
EPA AIRNow website(2004)
Website that consolidates reports from EPA, NOAA, NPS, state, and local agencies
[Select]
©2001-2004 LogicLibrary, Inc. All rights reserved.
http://demo/logiclibrary/application/general/assetApprove.do?role=pm&assetLicenseURN=199:3:ASSETLICENSE:0
Local intranet

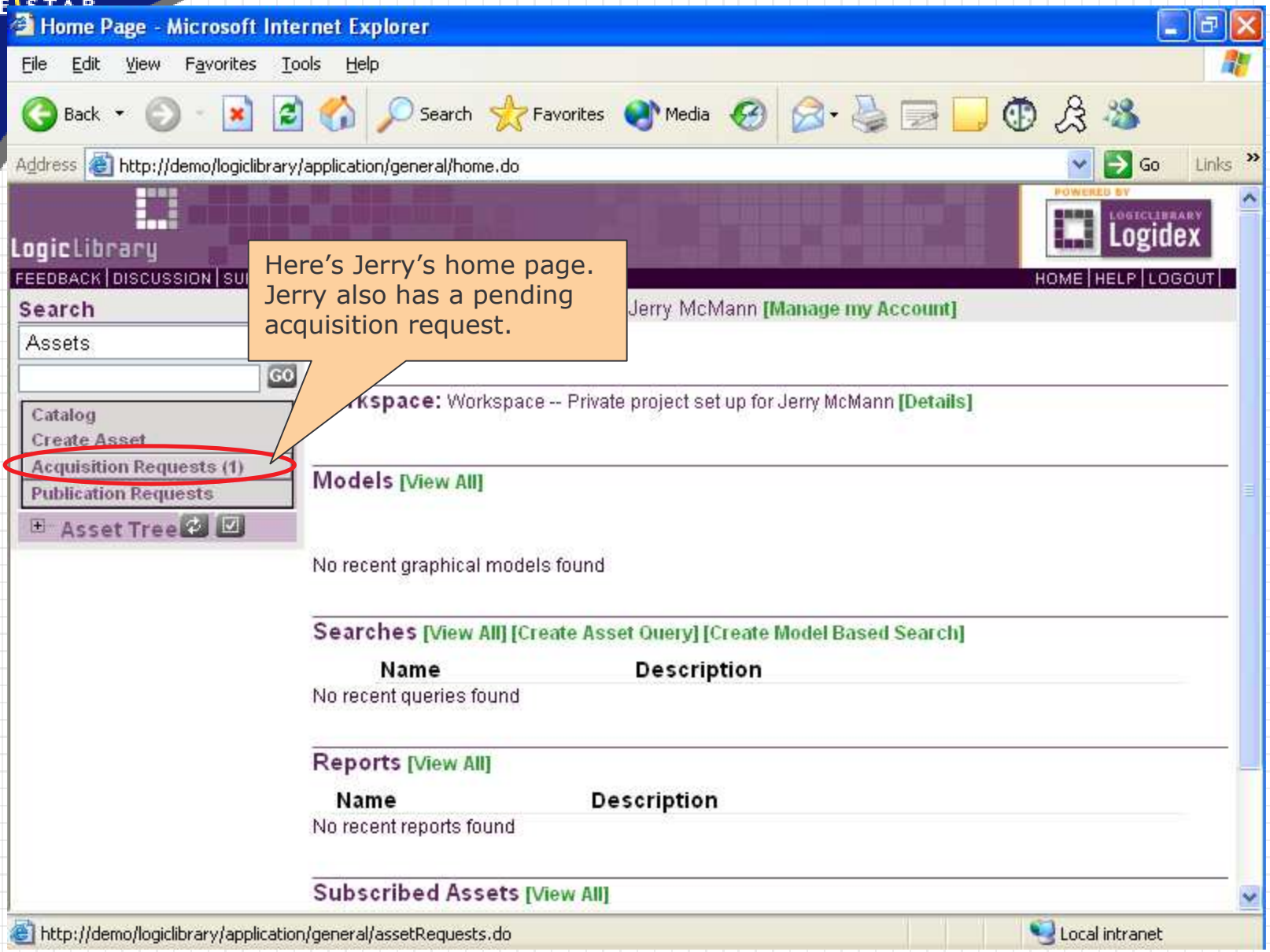

Asset Acquisition - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://demo/logiclibrary/application/general/assetApprove.do?role=pm&assetLicenseURN=199:3:ASSETLICENSE:0:4
Go Links
Elizabeth can look at the record in progress.
LogicLibrary
FEEDBACK | DISCUSSION | SUPPORT CENTER
Search
Assets
GO
Acquisition Requests (1)
Asset Tree
Home > Acquisition Requests >
Asset Acquisition: EPA AIRNow website(2004) by Bruce Johnson
Status: Pending Project Mgr Approva [Approve] [Reject]
Attachment: Browse...
Cross Charge:
Comment: Approved for update
Asset: EPA AIRNow website(2004)
Website that consolidates reports from EPA, NOAA, NPS, state, and local agencies
Source Library: fea
Owner: Web application development
Project: AQI integration
Team responsible for integrating AQI data into EPA website
Requestor: Bruce Johnson
Project Manager(s): Elizabeth Krouse
History
Who What When
javascript:submitForm("Approve")
Local intranet

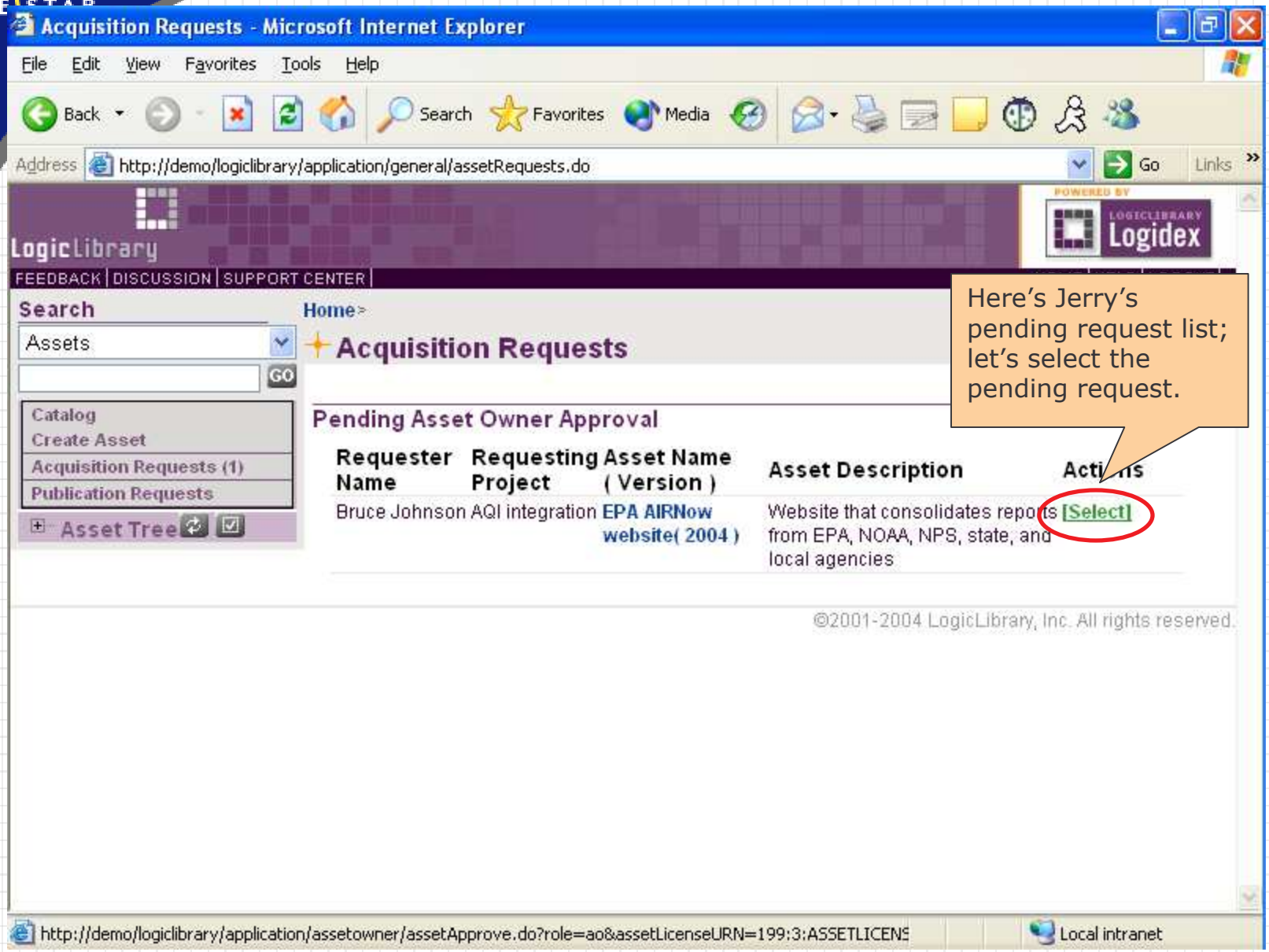
Acquisition Approvals in Logidex

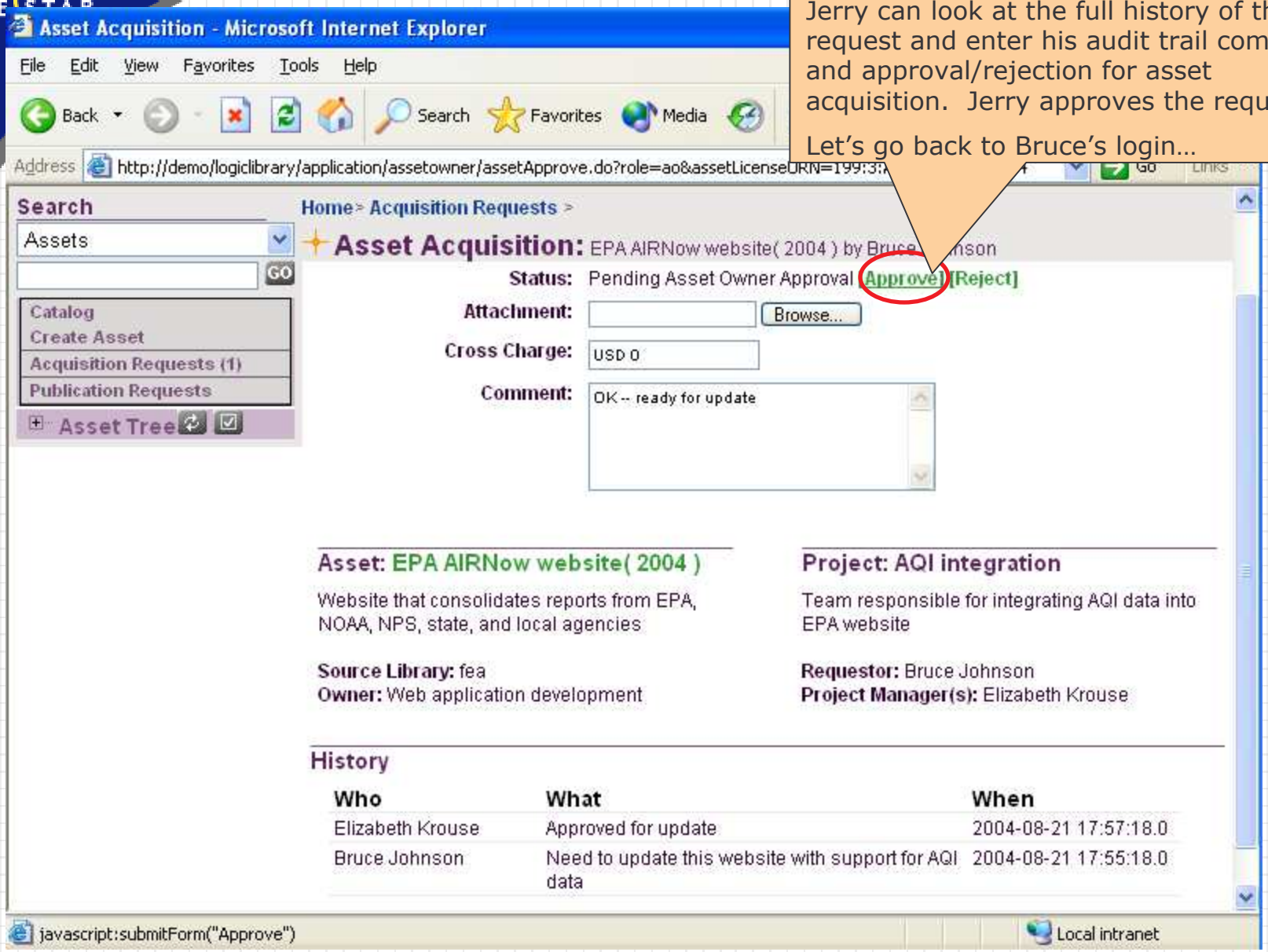
In the history detail, the original request comment is documented. Elizabeth can read this and make an approve/reject decision for her AQI Integration project. She decides to approve, adds her comment and clicks on *Approve*.

This forwards the acquisition request to the Asset Owner, Jerry McMann, with Jerry receiving an email indicating a pending acquisition. Note that Jerry isn't a member of the AQI Integration project, but he is responsible for signing off on modifications to the EPA Web site and as such is an Asset Owner within Logidex. Individual assets can be configured to require acquisition signoff as needed, with Asset Owners given responsibility for assets based on their position within the org group hierarchy.

Let's sign in as Jerry.

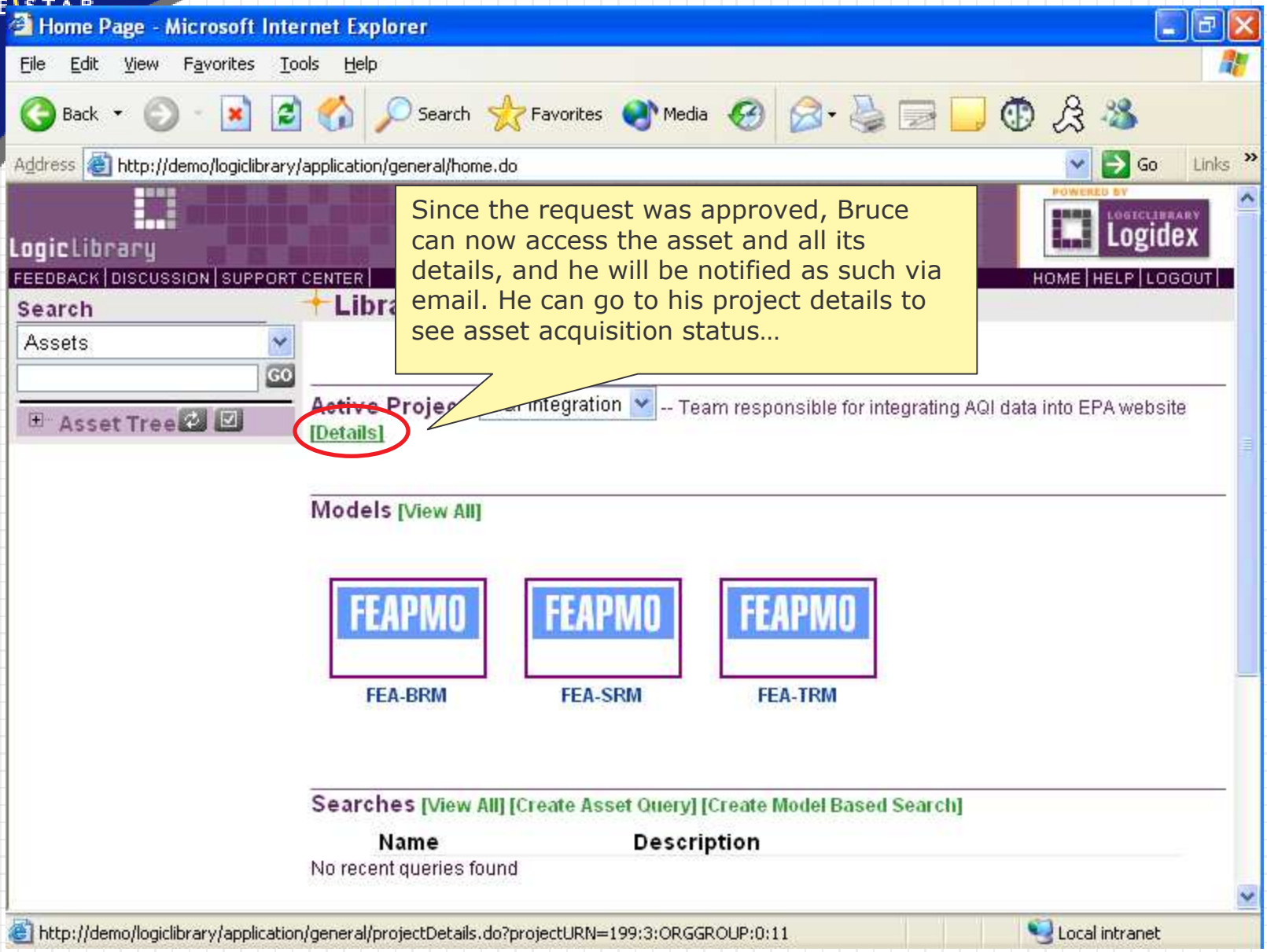

Home Page - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://demo/logiclibrary/application/general/home.do
Go Links
LogicLibrary
FEEDBACK | DISCUSSION | SU
HOME | HELP | LOGOUT
Logidex
Here's Jerry's home page. Jerry also has a pending acquisition request.
Search
Assets
GO
Catalog
Create Asset
Acquisition Requests (1)
Publication Requests
Asset Tree
Jerry McMann [Manage my Account]
kspace: Workspace -- Private project set up for Jerry McMann [Details]
Models [View All]
No recent graphical models found
Searches [View All] [Create Asset Query] [Create Model Based Search]
Name Description
No recent queries found
Reports [View All]
Name Description
No recent reports found
Subscribed Assets [View All]
http://demo/logiclibrary/application/general/assetRequests.do
Local intranet

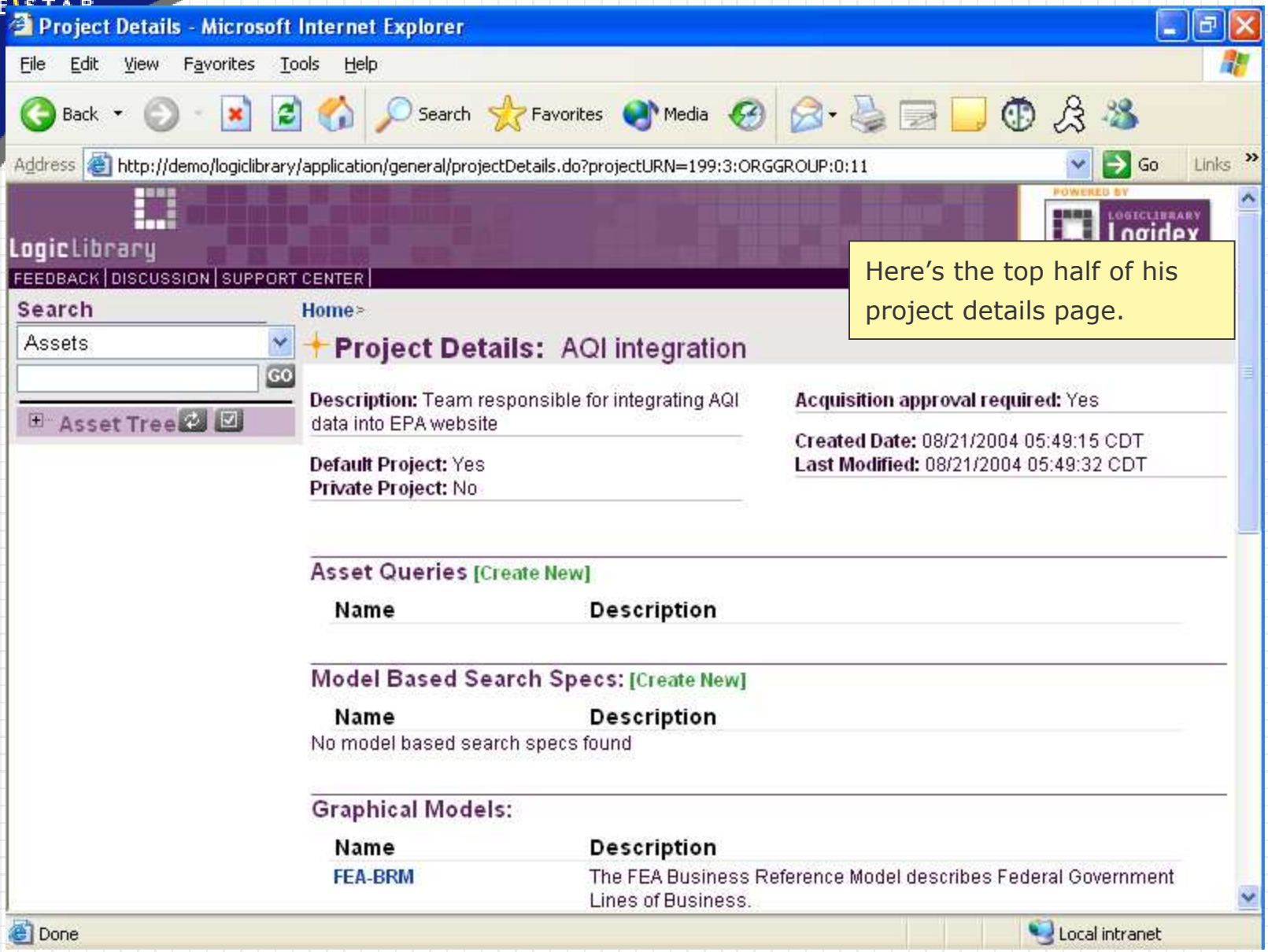

Acquisition Requests - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://demo/logiclibrary/application/general/assetRequests.do
Go Links
LogicLibrary
FEEDBACK | DISCUSSION | SUPPORT CENTER |
Logidex
Search
Assets
GO
Catalog
Create Asset
Acquisition Requests (1)
Publication Requests
Asset Tree
Home
Acquisition Requests
Here's Jerry's pending request list; let's select the pending request.
Pending Asset Owner Approval
Requester Name
Requesting Project
Asset Name (Version)
Asset Description
Acti ns
Bruce Johnson
AQI integration
EPA AIRNow website(2004)
Website that consolidates reports from EPA, NOAA, NPS, state, and local agencies
[Select]
©2001-2004 LogicLibrary, Inc. All rights reserved.
http://demo/logiclibrary/application/assetowner/assetApprove.do?role=ao&assetLicenseURN=199:3:ASSETLICENS
Local intranet



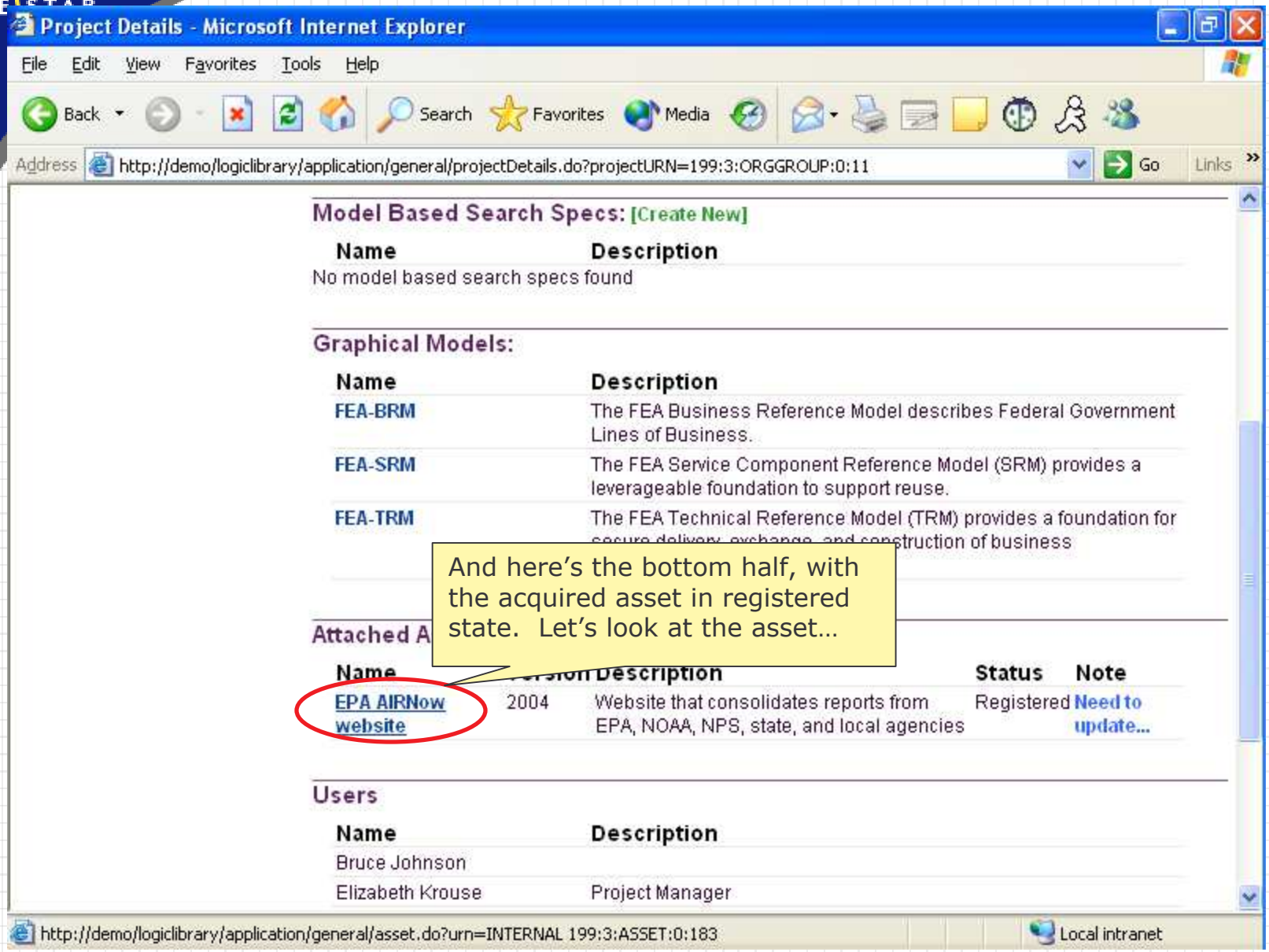
Jerry can look at the full history of the request and enter his audit trail comment and approval/rejection for asset acquisition. Jerry approves the request.

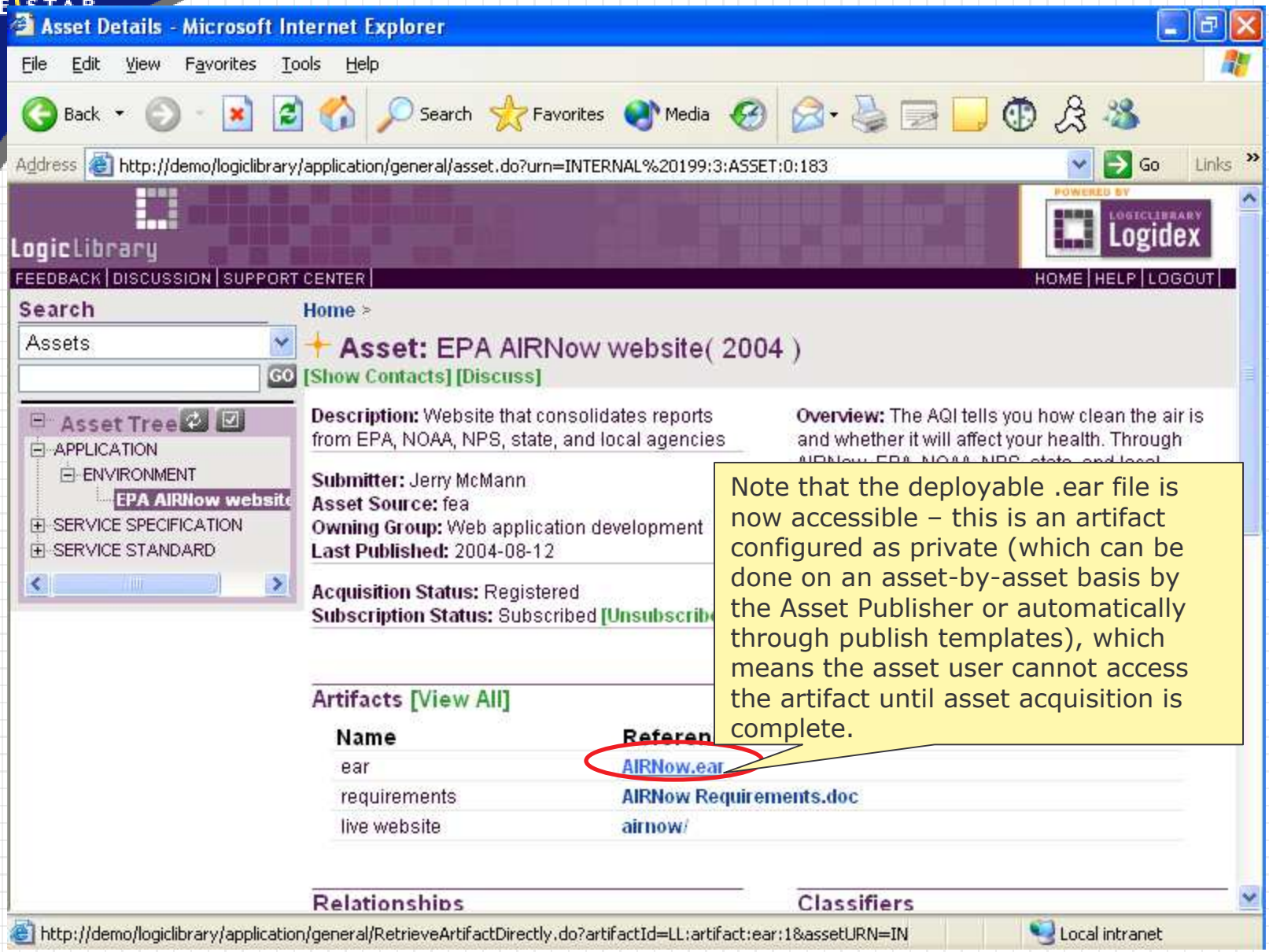
Let's go back to Bruce's login…


Home Page - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://demo/logiclibrary/application/general/home.do
Go Links
LogicLibrary
FEEDBACK | DISCUSSION | SUPPORT CENTER
Logidex
HOME | HELP | LOGOUT
Search
Assets
GO
Asset Tree
Since the request was approved, Bruce can now access the asset and all its details, and he will be notified as such via email. He can go to his project details to see asset acquisition status…
[Details]
-- Team responsible for integrating AQI data into EPA website
Models [View All]
FEAPMO
FEA-BRM
FEA-SRM
FEA-TRM
Searches [View All] [Create Asset Query] [Create Model Based Search]
Name
Description
No recent queries found
http://demo/logiclibrary/application/general/projectDetails.do?projectURN=199:3:ORGGROUP:0:11
Local intranet



Here's the top half of his project details page.


Project Details - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://demo/logiclibrary/application/general/projectDetails.do?projectURN=199:3:ORGGROUP:0:11
Go Links
Model Based Search Specs: [Create New]
Name Description
No model based search specs found
Graphical Models:
Name Description
FEA-BRM The FEA Business Reference Model describes Federal Government Lines of Business.
FEA-SRM The FEA Service Component Reference Model (SRM) provides a leverageable foundation to support reuse.
FEA-TRM The FEA Technical Reference Model (TRM) provides a foundation for
And here's the bottom half, with the acquired asset in registered state. Let's look at the asset…
Attached A
Name Description Status Note
EPA AIRNow website 2004 Website that consolidates reports from EPA, NOAA, NPS, state, and local agencies Registered Need to update...
Users
Name Description
Bruce Johnson
Elizabeth Krouse Project Manager
http://demo/logiclibrary/application/general/asset.do?urn=INTERNAL 199:3:ASSET:0:183
Local intranet



Note that the deployable .ear file is now accessible – this is an artifact configured as private (which can be done on an asset-by-asset basis by the Asset Publisher or automatically through publish templates), which means the asset user cannot access the artifact until asset acquisition is complete.

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Sample Logidex Reports

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Somerset, Inc.
Asset Reuse Activity by Type

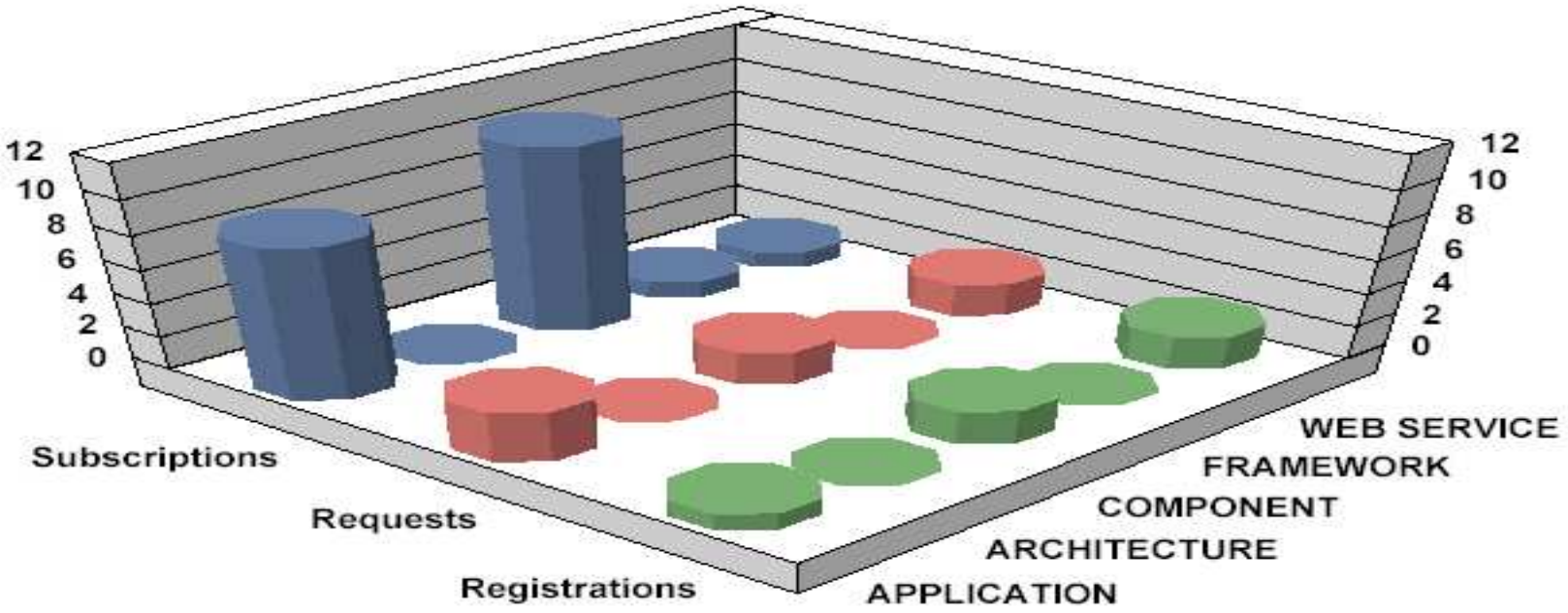
KNOW WHAT YOU HAVE. MOVE AHEAD.

For each type of Asset, this report shows a count of reuse transactions. Reuse transactions include Project Asset Requests, Project Asset Registrations and Asset Subscriptions. This report displays a graph with totals of subscriptions, requests and acquisitions for each Asset Type. It includes the detailed information of each reuse transaction following the graph.

Printed Date: 6/3/2003

Includes Asset Requests from the first Asset Request to 5/22/2003

Enterprise-Wide: Activity by Asset Type



NOBLE STAR

Somerset, Inc.
Assets Requested for Acquisition

Logidex

KNOW WHAT YOU HAVE. MOVE AHEAD.

Assets Requested for Acquisition for a Project by Project Users. Report is sorted by Asset and gives information on each request. In addition, it shows a count of asset requests, the potential reuse savings if pending asset requests are approved and the name of the requesting party and the status of

Printed Date: 4/29/2003

Includes Asset Requests dated from 11/ 1/2002 to 4/29/2003

GainWithholdingEngine	1.0

The Gain Withholding Engine is an application for the tax administration of annuity contracts.

PROJECT	REQUESTING USER	REQUEST STATUS	
apayne	Payne Ann	Pending Project Mgr Approval	
	Request Date>>> 1/10/03	Potential Reuse Savings>>>	34,642
Settlement	Johnson Bruce	Pending Project Mgr Approval	
	Request Date>>> 1/4/03	Potential Reuse Savings>>>	34,642
Online Brokerage	Payne Ann	Asset Publisher Rejected	
	Request Date>>> 1/4/03	Potential Reuse Savings>>>	0
Total Requests for this Asset >>>	3	Total Potential Reuse Savings for this Asset >>>	**$69,284**

NOBLE STAR

Link to website for:

-more descriptive information
-whitepapers
-access to specially Federalized demonstration of Logidex

http://www.noblestar.com/we_do/arch/federal.jsp

Federated Registry Pilot History

- Jana Crowder introduced concept to Dr. Brand Niemann in Sept. 2003
- Hosted first demonstration of federated capabilities on October 16, 2003
- Federated repository pilot presentation given at AIC ET/C Quarterly Subcommittee Meeting on November 26, 2003
- Common Process View and Repository presentations given at AIC ET/C Quarterly Subcommittee Meeting on January 26, 2004
  - Update was provided on the Federated Repository Pilot
  - Paul Pocialik, CTO and co-founder of Noblestar, introduced the audience to practical suggestions for leveraging technology to accelerate adoption of the Common Process View by making it scale to Agency proportions
- Updated Pilot Summary at AIC ET/C Quarterly Subcommittee Meeting on March 23, 2004
  - Added suggested improvements to emerging technology lifecycle management
  - product capabilities slide showing software development asset management criterion and available COTS products
  - Introduced newly discovered COTS product into 'strategic/results' chevron
- August 5, 2004 Federal Times report on the Federated Registry Pilot appeared
- August 16, 2004 Federated Registry Pilot Summary presented to EPA GIO

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